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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/384,932	08/26/1999	CLAUS TONDERING	09918/024001	8504

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EXAMINER

AVELLINO, JOSEPH E

ART UNIT PAPER NUMBER

2143

DATE MAILED: 10/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/384,932

Applicant(s)

TONDERING, CLAUS

58

Examiner

Joseph E. Avellino

Art Unit

2156 2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/26/99.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-21 are presented for examination.

Drawings

2. The drawings are objected to because of reasons cited by the Draftsperson. See enclosed PTO 940 form for details. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not disclose the method in which to determine the priority of the resource and how to allocate the resource in response to an increase priority of the resource.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-3, 5, 7-8, and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Overby, Jr. et al. (USPN 6,016,503) (hereinafter Overby).

6. Referring to claims 1 and 17, Overby discloses a method of managing usage of a resource in a network system, the network system comprising:

indicating available credit (usage level) for usage of a resource (col. 6, lines 41-48); and

regulating usage of the resource by a process based on the indicated available credit (col. 7, lines 18-32).

7. Referring to claim 2, Overby discloses the resource is memory space (col. 5, lines 8-20).

8. Referring to claim 3, Overby discloses the network is an embedded computer system (col. 1, lines 13-20).

9. Referring to claim 5, Overby discloses the method is modeled as a leaky bucket (col. 8, lines 6-11).

10. Referring to claim 7, Overby discloses the regulating step comprises modifying the available credit by adjusting a maximum resource usage value (col. 3, lines 5-11).

11. Referring to claim 8, Overby discloses notifying the process of the availability of the credit if the indicated available credit is less than a requested usage amount (col. 3, lines 25-36; col. 7, lines 23-36).

12. Referring to claim 18, Overby discloses a network including a plurality of devices, comprising:

a plurality of resources running in the network (col. 1, lines 20-24);

computer software, residing on a computer readable medium at each device accessing the plurality of resources to cause the device to perform the following operations:

indicating available credit for usage of a resource (col. 6, lines 41-48); and

regulating usage of the resource by a process based on the indicated available credit (col. 7, lines 18-32).

13. Claims 19 and 20 are rejected for similar reasons as stated above.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 6 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Overby in view of Garner et al. (USPN 6,112,085) (hereinafter Garner).

15. Referring to claims 4 and 21, Overby discloses a method for managing usage of a resource as stated in the claims above. Overby does not disclose that the network operates in a real-time networking environment. Garner discloses a network operating in a real-time networking environment (col. 25, lines 22-23). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Garner with Overby to allow more efficient processing of time-critical tasks.

16. Referring to claim 6, Overby discloses a method for managing usage of a resource as stated in the claims above. Overby does not disclose the method further

comprising determining the priority of the resource and allocating the resource in response to an increased priority of the resource. Garner discloses:

determining the priority of the resource (col. 58, lines 57-63); and
allocating the resource in response to an increased priority of the resource (col. 58, line 64-67).

It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Garner with Overby to allow preferred resources to be allocated to increase overall speed and efficiency of the network.

17. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Overby in view of Ginzboorg et al. (USPN 6,240,091) (hereinafter Ginzboorg).

18. Overby discloses a method of managing usage of a resource as stated in the claims above. Overby does not disclose sending a message to a network address associated with the process when the requested usage amount is greater than the available credit. Ginzboorg discloses sending a message to a network address associated with the process when the requested usage amount is greater than the available credit (col. 14, lines 27-31). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Ginzboorg with Overby to reduce network congestion and increase overall efficiency of the system.

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19. Claims 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Overby in view of Harrington et al. (USPN 6,289,012) (hereinafter Harrington).

20. Referring to claim 10, Overby discloses using the software tool to regulate the usage of any of the plurality of the resources by any of the plurality of devices (col. 4, lines 37-40). Overby does not disclose creating a software tool on each of the plurality of devices accessing the plurality of resources corresponding to each of the resources. Harrington discloses creating a software tool on each of the plurality of devices accessing the plurality of resources corresponding to each of the resources (col. 12, lines 55-59). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Harrington with Overby to provide for reduced complexity of the system while allowing for the ease of future upgrades and replacements.

21. Referring to claim 11, Overby in view of Harrington disclose the method of managing a plurality of resources as stated in the claims above. Harrington further discloses allocating a descriptor representative of any of the software tools to any of the plurality of devices (col. 15, lines 46-50). Overby further discloses associating with each software tool a maximum usage level (col. 7, lines 54-55).

22. Referring to claim 12, Overby discloses:

decrementing the maximum usage level of the software tool in response to the use of the resource associated with the tool by any of the plurality of devices (col. 6, lines 41-48);

calculating an available credit based on the usage of the resource associated with the tool as a function of the maximum usage level (col. 6, lines 41-48); and

indicating to a device waiting to use the resource associated with the tool of the available credit (col. 7, lines 23-31).

23. Referring to claim 14, Overby in view of Harrington disclose the method of managing a plurality of resources as stated in the claims above. Harrington further discloses incrementing the maximum usage level to at least correspond to the specified usage level (col. 15, lines 21-45). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Harrington with Overby for prioritized memory allocation and efficient use of memory in the system.

24. Referring to claim 16, Overby in view of Harrington disclose the method of managing a plurality of resources as stated in the claims above. Harrington further discloses destroying the software tool in response to a request from one of the devices (col. 16, lines 52-56 and Figure 26). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Harrington with Overby to allow for efficient memory management and to facilitate garbage collection in the system.

25. Claims 13 and 15 are rejected for similar reasons as stated above.

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

27. Hauser et al. (USPN 5,889,956) disclose a hierarchical resource management with maximum allowable allocation boundaries.

28. Wipfel et al. (USPN 6,151,688) discloses a method of resource management in a clustered computer system.

29. Hunt (USPN 6,330,313) discloses a communications network.

30. Bonomi et al. (USPN 6,069,872) disclose an explicit congestion control system and method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (703) 305-7855. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alvin E. Oberley can be reached on (703) 305-9716. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

JEA
September 6, 2002



JOHN A. FOLLANSBEE
PRIMARY EXAMINER